PERIODIC MAINTENANCE SERVICES

PM

PERIODIC MAINTENANCE SERVICES > General Description

GENERAL DESCRIPTION

Be sure to perform periodic maintenance in order to maintain vehicle performance and find problems before they occur.

PERIODIC MAINTENANCE SERVICES > Schedule

MAINTENANCE SCHEDULE

1. MODEL WITH US SPECIFICATION

Maintenance item		Maintenance interval [Number of months or km (miles), whichever occurs first]											
	Months	6	12	18	24	30	36	42	48	54	60	66	To be continued to the next table.	Remarks
	× 1,000 km	9.6	19.2	28.8	38.4	48	57.6	67.2	76.8	86.4	96	105.6		
	× 1,000 miles	6	12	18	24	30	36	42	48	54	60	66		
1	Engine oil	R	R	R	R	R	R	R	R	R	R	R		Note 1.
2	Engine oil filter	R	R	R	R	R	R	R	R	R	R	R		Note 1.
3	Spark plug										R			
4	V-belt					I					I			
5	Fuel line					I					I			Note 4. Note 5.
6	Fuel filter													Note 2. Note 5.
7	Air cleaner element					R					R			Note 6.
8	Cooling system					I					I			Note 8.
9	Engine coolant	I	I	I	I	I	I	I	I	I	I	I		Note 8. Note 9.
10	Clutch system		I		I		I		I		I			
11	TRANSMISSION GEAR OIL				I				I					
12	ATF					I					R			
13	Rear differential gear oil	Check every 12 months or 19,200 km (12,000 miles), and replace every 48 months or 96,000 km (60,000 miles).												

Maintenance item		Maintenance interval [Number of months or km (miles), whichever occurs first]												
14	Brake line		I		I		I		I		I			Note 4.
15	Brake fluid / clutch fluid (MT model only)					R					R			Note 3.
16	Disc brake pad and disc		I		I		I		I		I			Note 4.
17	Parking brake		I		I		I		I		I			Note 4.
18	Suspension		I		I		I		I		I			Note 4.
19	Wheel bearing										I			
20	Axle boots and joints		I		I		I		I		I			Note 4.
21	Tire rotation	Perform every 10,000 km (6,000 miles)												Note 7.
22	Steering system (power steering)		I		I		I		I		I			Note 4.
23	A/C filter	Replace every 12 months or 19,200 km (12,000 miles)												Note 6.

Maintenance item		Maintenance interval [Number of months or km (miles), whichever occurs first]												
	Months	Continued from previous table	72	78	84	90	96	102	108	114	120	126	132	Remarks
	× 1,000 km		115.2	124.8	134.4	144	153.6	163.2	172.8	182.4	192	201.6	211.2	
	× 1,000 miles		72	78	84	90	96	102	108	114	120	126	132	
1	Engine oil		R	R	R	R	R	R	R	R	R	R	R	Note 1.
2	Engine oil filter		R	R	R	R	R	R	R	R	R	R	R	Note 1.
3	Spark plug										R			
4	V-belt					I					I			
5	Fuel line					I					I			Note 4.

Maintenance item		Maintenance interval [Number of months or km (miles), whichever occurs first]												
														Note 5.
6	Fuel filter		R											Note 2. Note 5.
7	Air cleaner element					R					R			Note 6.
8	Cooling system					I					I			Note 8.
9	Engine coolant		I	I	I	I	I	I	I	I	I	I	I	Note 8. Note 9.
10	Clutch system		I		I		I		I		I			
11	TRANSMISSION GEAR OIL		I				I				I			
12	ATF					I					R			
13	Rear differential gear oil	Check every 12 months or 19,200 km (12,000 miles), and replace every 48 months or 96,000 km (60,000 miles).												
14	Brake line		I		I		I		I		I		I	Note 4.
15	Brake fluid / clutch fluid (MT model only)					R					R			Note 3.
16	Disc brake pad and disc		I		I		I		I		I		I	Note 4.
17	Parking brake		I		I		I		I		I		I	Note 4.
18	Suspension		I		I		I		I		I		I	Note 4.
19	Wheel bearing										I			
20	Axle boots and joints		I		I		I		I		I		I	Note 4.
21	Tire rotation	Perform every 10,000 km (6,000 miles)												Note 7.
22	Steering system (power steering)		I		I		I		I		I		I	Note 4.
23	A/C filter	Replace every 12 months or 19,200 km (12,000 miles)												Note 6.

Symbol

R: Replace
I: Inspection
P: Perform

Note:

1. **When the vehicle is used under severe conditions, replace the engine oil and engine oil filter every 3 months or 4,800 km (3,000 miles).**
2. **When the vehicle is used under extremely low or high temperature conditions, the fuel filter may become dirty. Therefore, it should be replaced frequently.**
3. **When the vehicle is used in high humidity area or mountain area, replace the brake fluid every 15 months or 24,000 km (15,000 miles).**
4. **When the vehicle is used under severe conditions, check every 6 months or 9,600 km (6,000 miles).**
5. **This inspection procedure is not required to maintain emission warranty eligibility and it does not affect the manufacturer's obligations under EPA's in-use compliance program.**
6. **When the vehicle is used under extremely dusty conditions, the air cleaner element and A/C filter should be replaced more often.**
7. **A tire should be replaced when the tread wear indicator appears as a solid band across the tread. The indicators appear when the remaining tread has been worn to 1.6 mm (0.063 in) or less.**
8. **To prevent cooling system leakage, be sure to add SUBARU genuine cooling system conditioner when replacing coolant.**
9. **Replace after the first 11 years or 220,000 km (137,500 miles), and every six years or 120,000 km (75,000 miles) thereafter.**

EXAMPLES OF SEVERE CONDITIONS

a. Drive repeatedly at short distance. (Maintenance items 1 and 2)
b. Drive repeatedly on bumpy muddy road. (Maintenance items 14, 15, 17 and 18)
c. Drive repeatedly in dusty conditions. (Maintenance items 7 and 23)
d. Drive in extremely cold weather. (Maintenance items 1, 2, 16, 20 and 22)
e. Area where salt or other corrosive used. (Maintenance items 5, 14, 15, 16, 17, 18 and 20)
f. Coastal area. (Maintenance item 5)

PERIODIC MAINTENANCE SERVICES > Engine Oil

INSPECTION

Refer to "Engine Oil" of "LUBRICATION (H4DO)" for engine oil inspection procedure. Ref. to LUBRICATION(H4DO)>Engine Oil>INSPECTION.

PERIODIC MAINTENANCE SERVICES > Engine Oil

REPLACEMENT

Refer to "Engine Oil" of "LUBRICATION (H4DO)" for engine oil replacement procedure. Ref. to LUBRICATION(H4DO)>Engine Oil>REPLACEMENT.

PERIODIC MAINTENANCE SERVICES > Engine Oil Filter

REPLACEMENT

Refer to “Oil Filter” of “LUBRICATION (H4DO)” for engine oil filter replacement. Ref. to LUBRICATION(H4DO)>Oil Filter.

PERIODIC MAINTENANCE SERVICES > Spark Plug

REPLACEMENT

Refer to “Spark Plug” of “IGNITION (H4DO)” for spark plug replacement procedure. Ref. to IGNITION(H4DO)>Spark Plug.

PERIODIC MAINTENANCE SERVICES > V-belt

INSPECTION

Refer to "V-belt" of "MECHANICAL (H4DO)" for V-belt inspection procedure. Ref. to MECHANICAL(H4DO)>V-belt>INSPECTION.

PERIODIC MAINTENANCE SERVICES > V-belt

REPLACEMENT

Refer to "V-belt" of "MECHANICAL (H4DO)" for V-belt replacement procedure. Ref. to MECHANICAL(H4DO)>V-belt.

PERIODIC MAINTENANCE SERVICES > Fuel Line

INSPECTION

The fuel line is located mostly internally, so check pipes, areas near pipes, and engine compartment piping for rust, hose and tube damage, loose band, etc. If faulty parts are found, repair or replace them.
Ref. to FUEL INJECTION (FUEL SYSTEMS)(H4DO)>Fuel Delivery and Evaporation Lines>INSPECTION.

PERIODIC MAINTENANCE SERVICES > Fuel Filter

REPLACEMENT

Refer to "Fuel Filter" of "FUEL INJECTION (FUEL SYSTEMS) (H4DO)" for fuel filter replacement procedure.
Ref. to FUEL INJECTION (FUEL SYSTEMS)(H4DO)>Fuel Filter.

PERIODIC MAINTENANCE SERVICES > Fuel Filter

INSPECTION

Check for clogging.

PERIODIC MAINTENANCE SERVICES > Air Cleaner Element

REPLACEMENT

Refer to “Air Cleaner Element” of “INTAKE (INDUCTION) (H4DO)” for air cleaner element replacement procedure. Ref. to INTAKE (INDUCTION)(H4DO)>Air Cleaner Element.

PERIODIC MAINTENANCE SERVICES > Cooling System

INSPECTION

1. RADIATOR

Check that there are no engine coolant leaks from the hose connections. Refer to "Radiator" of "COOLING (H4DO)" for radiator inspection procedure. Ref. to COOLING(H4DO)>Radiator>INSPECTION.

2. RADIATOR CAP

Refer to "Radiator Cap" of "COOLING (H4DO)" for radiator cap inspection procedure. Ref. to COOLING(H4DO)>Radiator Cap>INSPECTION.

3. COOLING FAN

Refer to "Radiator Fan System" of "COOLING (H4DO)" for cooling fan inspection procedure. Ref. to COOLING(H4DO)>Radiator Fan System>INSPECTION.

4. COOLING SYSTEM

Start the engine, and then inspect that it does not overheat or it is not cooled excessively. If it overheats or it is cooled excessively, check the cooling system. Ref. to COOLING(H4DO)>Symptoms and causes>INSPECTION.

PERIODIC MAINTENANCE SERVICES > Engine Coolant

INSPECTION

Refer to "Engine Coolant" of "COOLING (H4DO)" for engine coolant inspection procedure. Ref. to COOLING(H4DO)>Engine Coolant>INSPECTION.

PERIODIC MAINTENANCE SERVICES > Engine Coolant

REPLACEMENT

Refer to "Engine Coolant" of "COOLING (H4DO)" for engine coolant replacement procedure. Ref. to COOLING(H4DO)>Engine Coolant>REPLACEMENT.

PERIODIC MAINTENANCE SERVICES > Clutch System

INSPECTION

Refer to "Clutch Pedal" of "CLUTCH SYSTEM" for clutch system inspection procedure. Ref. to CLUTCH SYSTEM>Clutch Pedal>INSPECTION.

PERIODIC MAINTENANCE SERVICES > Clutch System

ADJUSTMENT

Refer to "Clutch Pedal" of "CLUTCH SYSTEM" for clutch system adjustment procedure. Ref. to CLUTCH SYSTEM>Clutch Pedal>ADJUSTMENT.

PERIODIC MAINTENANCE SERVICES > Transmission Gear Oil

INSPECTION

Refer to “Transmission Gear Oil” of “MANUAL TRANSMISSION” for transmission gear oil inspection procedure. Ref. to MANUAL TRANSMISSION>Transmission Gear Oil>INSPECTION.

PERIODIC MAINTENANCE SERVICES > Transmission Gear Oil

REPLACEMENT

Refer to “Transmission Gear Oil” of “MANUAL TRANSMISSION” for transmission gear oil replacement procedure. Ref. to MANUAL TRANSMISSION>Transmission Gear Oil>REPLACEMENT.

PERIODIC MAINTENANCE SERVICES > Automatic Transmission Fluid

INSPECTION

Refer to "ATF" of "AUTOMATIC TRANSMISSION" for ATF inspection procedure. Ref. to AUTOMATIC TRANSMISSION>Automatic Transmission Fluid>INSPECTION.

PERIODIC MAINTENANCE SERVICES > Automatic Transmission Fluid

REPLACEMENT

Refer to "ATF" of "AUTOMATIC TRANSMISSION" for ATF replacement procedure. Ref. to AUTOMATIC TRANSMISSION>Automatic Transmission Fluid>REPLACEMENT.

PERIODIC MAINTENANCE SERVICES > Automatic Transmission Fluid

ADJUSTMENT

Refer to "ATF" of "AUTOMATIC TRANSMISSION" for ATF adjustment procedure. Ref. to AUTOMATIC TRANSMISSION>Automatic Transmission Fluid>INSPECTION.

PERIODIC MAINTENANCE SERVICES > Differential Gear Oil

INSPECTION

1. REAR DIFFERENTIAL

Refer to "Differential Gear Oil" of "DIFFERENTIALS" for rear differential gear oil inspection procedure. Ref. to DIFFERENTIALS>Differential Gear Oil>INSPECTION.

PERIODIC MAINTENANCE SERVICES > Differential Gear Oil

REPLACEMENT

1. REAR DIFFERENTIAL

Refer to "Differential Gear Oil" of "DIFFERENTIALS" for rear differential gear oil replacement procedure. Ref. to DIFFERENTIALS>Differential Gear Oil>REPLACEMENT.

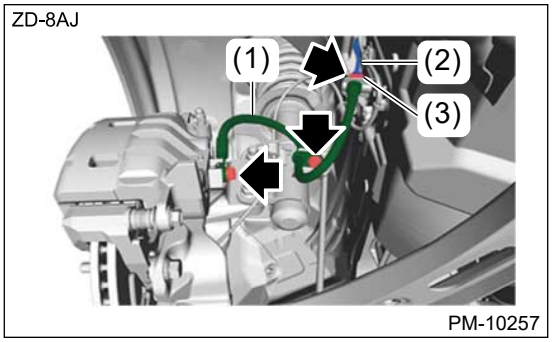
PERIODIC MAINTENANCE SERVICES > Brake Line

INSPECTION

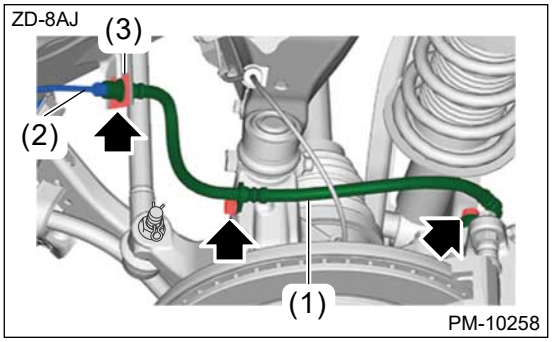
1. BRAKE LINE

1. Check the brake hose for crack, interference with other parts, damage, and fluid leakage on connecting sections.
2. Make sure that brake pipes/hoses do not interfere with adjacent parts and there is no loose connector/clamp during driving.
3. Check any trace of brake fluid leakage, scratches, etc. on master cylinder assembly and hydraulic unit assembly VSC (VDC).

Note:
- **When the brake fluid level in the oil reservoir COMPL is lower than specified limit, the brake warning light on the combination meter will illuminate.**
- **Visually check the brake hose for damage. (Use a mirror where it is difficult to see)**



(1) Brake hose front
(2) Pipe ASSY front ABS
(3) Clamp



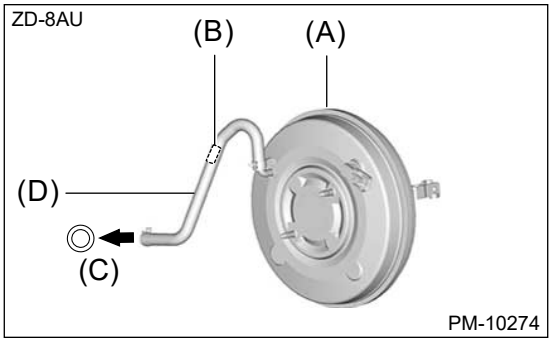
(1) Brake hose rear
(2) Pipe center brake rear
(3) Clamp

2. SERVICE BRAKE

Refer to "Brake Pedal" of "BRAKE" for brake inspection procedure. Ref. to BRAKE>Brake Pedal>INSPECTION.

3. BRAKE SERVO SYSTEM

1. With the engine off, depress the brake pedal several times applying the same pedal force. Check that the travel distance should not change.
2. With the brake pedal depressed, start the engine. Check that the pedal moves slightly toward the floor.
3. With the brake pedal depressed, stop the engine and keep the pedal depressed for 30 seconds. Check that the pedal height does not change.
4. A check valve is built into the vacuum hose. Disconnect the vacuum hose to inspect function of check valve.
   Check that check valve ventilates from vacuum booster assembly side to engine side. Also, check that there is no ventilation from engine side to vacuum booster assembly side.



(A) Vacuum booster ASSY
(B) Check valve
(C) Engine side
(D) Vacuum hose

5. Check the vacuum hose for cracks or other damage.

Caution:
When installing the vacuum hose on the engine and vacuum booster assembly, do not use soapy water or lubricating oil on their connections.

6. Check that the vacuum hose is securely tightened.

PERIODIC MAINTENANCE SERVICES > Brake Fluid

INSPECTION

Refer to "Brake Fluid" of "BRAKE" for brake fluid inspection procedure. Ref. to BRAKE>Brake Fluid>INSPECTION.

PERIODIC MAINTENANCE SERVICES > Brake Fluid

REPLACEMENT

Refer to "Brake Fluid" of "BRAKE" for brake fluid replacement procedure. Ref. to BRAKE>Brake Fluid>REPLACEMENT.

PERIODIC MAINTENANCE SERVICES > Disc Brake Pad and Disc

INSPECTION

Refer to "BRAKE" for brake inspection procedure.

Front brake pad:

Ref. to BRAKE>Front Brake Pad>INSPECTION.

Rear brake pad:

Ref. to BRAKE>Rear Brake Pad>INSPECTION.

Front disc rotor:

Ref. to BRAKE>Front Disc Rotor>INSPECTION.

Rear disc rotor:

Ref. to BRAKE>Rear Disc Rotor>INSPECTION.

Front caliper:

Ref. to BRAKE>Front Disc Brake Assembly>INSPECTION.

Rear caliper:

Ref. to BRAKE>Rear Disc Brake Assembly>INSPECTION.

PERIODIC MAINTENANCE SERVICES > Parking Brake

INSPECTION

Refer to "Parking Brake Assembly (Rear Disc Brake)" of "PARKING BRAKE" for parking brake inspection procedures. Ref. to PARKING BRAKE>Parking Brake Assembly (Rear Disc Brake)>INSPECTION.

PERIODIC MAINTENANCE SERVICES > Parking Brake

ADJUSTMENT

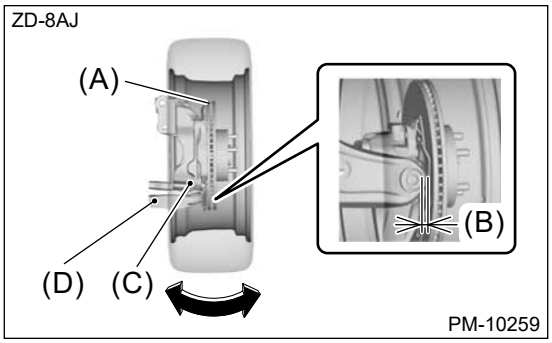
Refer to "Parking Brake Assembly (Rear Disc Brake)" of "PARKING BRAKE" for parking brake adjustment procedures. Ref. to PARKING BRAKE>Parking Brake Assembly (Rear Disc Brake)>ADJUSTMENT.

PERIODIC MAINTENANCE SERVICES > Suspension

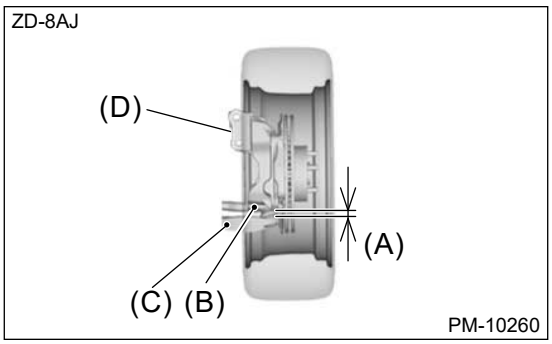
INSPECTION

1. FRONT SUSPENSION BALL JOINT

1. Lift up the vehicle until front wheels are off ground.
2. Grasp the bottom of tire and move it in the arrow direction. If movement (B) is observed between the front brake back plate (A) and the end of arm assembly front (D), the ball joint (C) may be excessively worn.

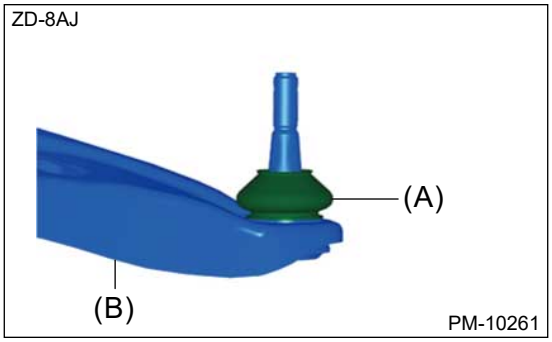


3. Grasp the end of arm assembly front (C) and move it up and down. If movement (A) between front axle housing (D) and arm assembly front (C) boss is observed, the ball joint (B) may be excessively worn.



4. If the movement related to the previous two steps is observed, replace the arm assembly front. Ref. to FRONT SUSPENSION>Front Arm.
5. Damage of dust boots
   Visually inspect the ball joint dust boots. Replace if the arm assembly front is damaged.

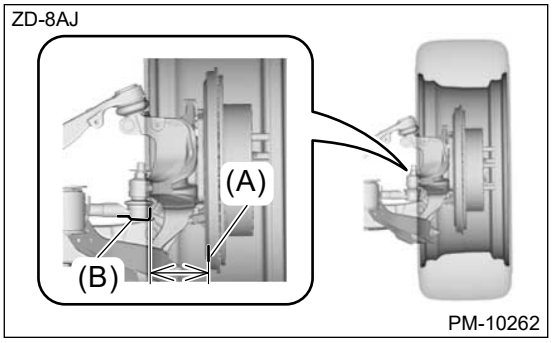
Note:
When the arm assembly front is replaced, check the toe-in of front wheel. If it is not within the inspection value, adjust the toe-in. Ref. to FRONT SUSPENSION>Wheel Alignment.



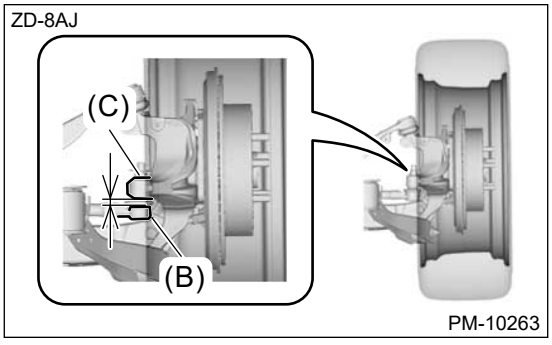
(A) Dust boots (B) Arm ASSY front

2. REAR SUSPENSION BALL JOINT

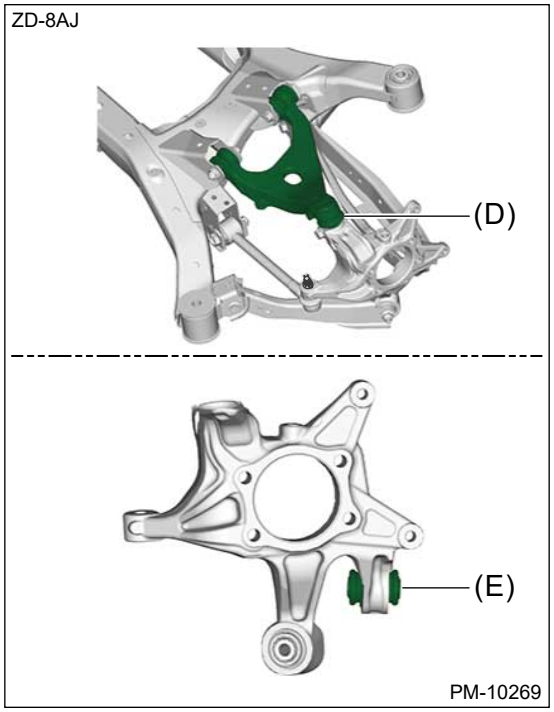
1. Lift up the vehicle until rear wheels are off ground.
2. Grasp the bottom of tire and move it in the drive shaft axial direction.
3. If movement is observed between the rear brake back plate (A) and end of rear lateral link assembly front (B), ball joint may be excessively worn.



4. Grasp the end of rear lateral link assembly front (B) and move it up and down. If movement is observed between the rear axle housing (C) and rear lateral link assembly front (B) boss, ball joint may be excessively worn.



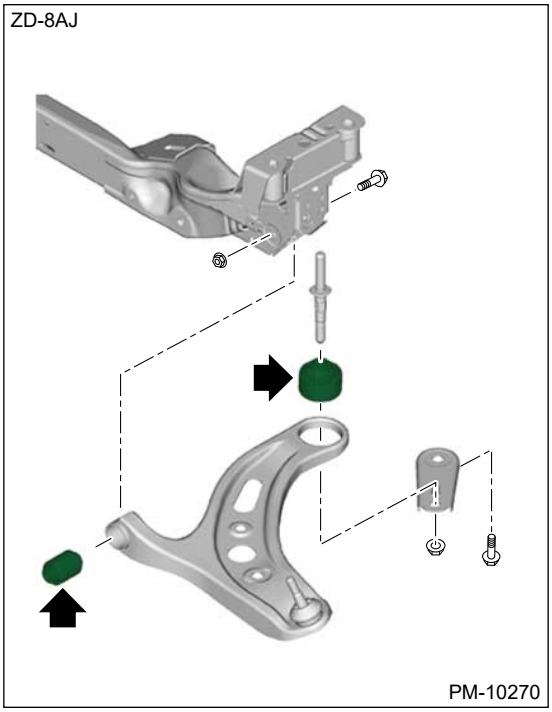
5. If the movement related to the previous two steps is observed, replace the rear lateral link assembly front. Ref. to REAR SUSPENSION>Rear Lateral Link (front).
6. Damage of dust boots
   Visually inspect the ball joint dust boots. Replace if rear lateral link assembly front is damaged.
7. Check the arm assembly rear upper ball joint (D) and the pillow ball bushing (E) of rear axle housing in the same manner.



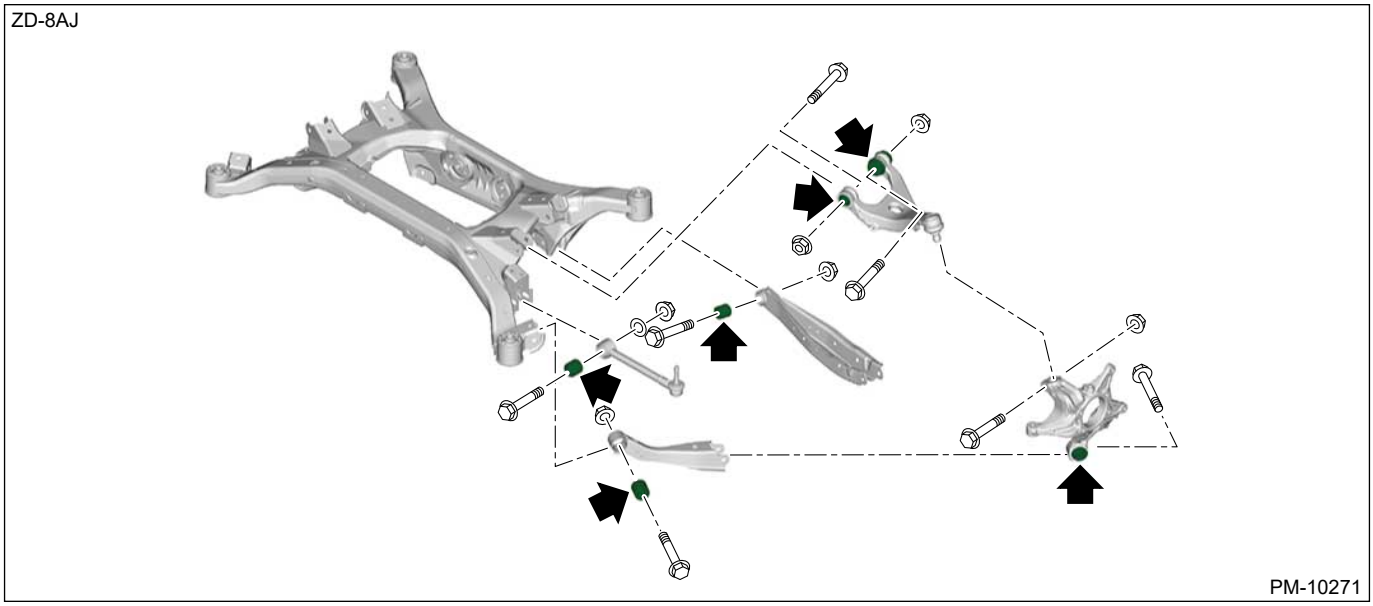
3. FRONT, REAR SUSPENSION BUSHING

Apply pressure with tire lever etc, and inspect the bushing for excessive wear or damage. If defective, replace the bushing.

- Front suspension bushing



- Rear suspension bushing



4. SUSPENSION HEIGHT

Refer to "Wheel Alignment" of "FRONT SUSPENSION" for suspension height inspection procedure. Ref. to FRONT SUSPENSION>Wheel Alignment>INSPECTION > SUSPENSION HEIGHT.

5. WHEEL ALIGNMENT

Measure and adjust the front and rear wheel alignment at a time. Refer to "Wheel Alignment" of "FRONT SUSPENSION" for measurement and adjustment procedures of wheel alignment. Ref. to FRONT SUSPENSION>Wheel Alignment>INSPECTION.

6. OIL LEAKAGE OF STRUT ASSEMBLY AND SHOCK ABSORBER ASSEMBLY REAR

Visually inspect the strut assembly and shock absorber assembly rear for oil leakage. Replace the strut assembly and shock absorber assembly rear if oil leaks excessively.

7. TIGHTNESS OF BOLTS AND NUTS

Check the bolts and nuts for looseness. Retighten the bolts and nuts to specified torque if looseness is detected. Always replace non-reusable parts with new ones.

Front suspension:

Ref. to FRONT SUSPENSION>General Description.

Rear suspension:

Ref. to REAR SUSPENSION>General Description.

8. DAMAGE TO SUSPENSION PARTS

Check the following parts and the fastening portion of the vehicle body for deformation or excessive rusting which impairs the suspension. Thoroughly remove the deposits of the lower part of the spring seat of the strut assembly where dust and mud tend to pile up. If necessary, replace the damaged parts with new parts. If minor rust formation, pitting, etc. are noted, remove the rust and take rust prevention measure.

- Front suspension

  - Arm assembly front
  - Crossmember COMPL front
  - Strut assembly
- Rear suspension
  - Sub frame assembly rear
  - Rear lateral link assembly front
  - Rear lateral link assembly rear
  - Arm assembly rear upper
  - Trailing link assembly rear
  - Shock absorber assembly rear
- In the area where calcium chloride or other snow melting agents are sprayed to melt snow on a road in winter, check suspension parts for damage caused by rust every 12 months after 60 months have elapsed since delivery. Take rust prevention measures as required.

PERIODIC MAINTENANCE SERVICES > Wheel Bearing

INSPECTION

1. FRONT HUB UNIT BEARING

For inspection procedure of front hub unit bearing, refer to “Front Hub Unit Bearing” in “PROPELLER SHAFT / DRIVE SHAFT / AXLE”. Ref. to PROPELLER SHAFT / DRIVE SHAFT / AXLE>Front Hub Unit Bearing>INSPECTION.

2. REAR HUB UNIT BEARING

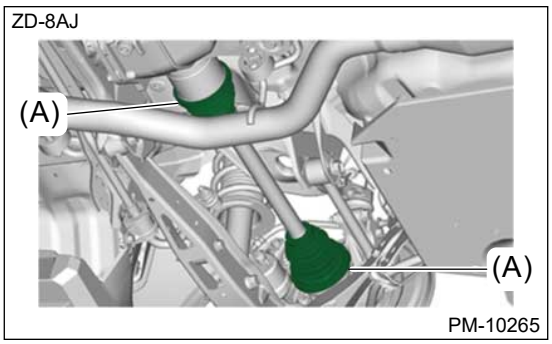
For inspection procedure of rear hub unit bearing, refer to “Rear Hub Unit Bearing” in “PROPELLER SHAFT / DRIVE SHAFT / AXLE”. Ref. to PROPELLER SHAFT / DRIVE SHAFT / AXLE>Rear Hub Unit Bearing>INSPECTION.

PERIODIC MAINTENANCE SERVICES > Axle Boots & Joints

INSPECTION

1. REAR AXLE BOOTS

Inspect the rear axle boots (A) for deformation, damage or failure. If faulty, replace it with new part. Ref. to PROPELLER SHAFT / DRIVE SHAFT / AXLE>Rear Drive Shaft.



2. PROPELLER SHAFT

Inspect the propeller shaft for damage or failure. If faulty, replace it with new part. Ref. to PROPELLER SHAFT / DRIVE SHAFT / AXLE>Propeller Shaft.

PERIODIC MAINTENANCE SERVICES > Tire Inspection and Rotation

INSPECTION

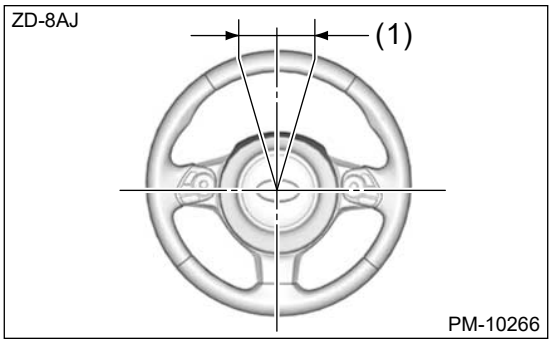
Refer to “Tire and Wheel” of “WHEEL AND TIRE SYSTEM” for tire inspection and rotation procedures.
Ref. to WHEEL AND TIRE SYSTEM>Tire and Wheel>INSPECTION.

PERIODIC MAINTENANCE SERVICES > Steering System (Power Steering)

INSPECTION

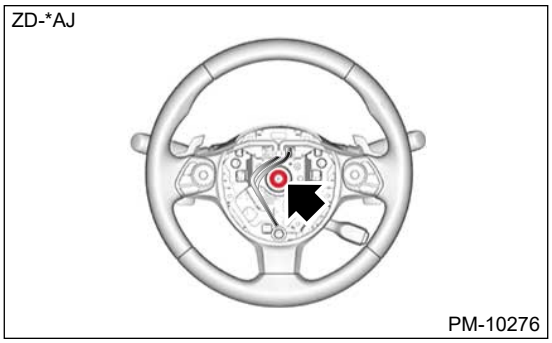
1. STEERING WHEEL

1. Set the steering wheel in a straight-ahead position, and check the steering wheel spokes to make sure they are correctly set in their specified positions.
2. Lightly turn the steering wheel to the left and right to determine the point where front wheels start to move.
   Measure the distance of the movement of steering wheel (periphery).
   Steering wheel free play:
   0 — 30 mm (0 — 1.18 in)



(1) Steering wheel free play

   Move the steering wheel toward the shaft to check if there is play in the direction.
   Specification:
   0.5 mm (0.02 in)
3. Check the steering wheel for looseness. If it is loose, tighten the nut to the specified torque.
   Tightening torque:
   39 N·m (4.0 kgf-m, 28.8 ft-lb)



4. Drive the vehicle and check the following items.
   (1) Steering force:
   The effort required for steering should be smooth and even at all points, and should not vary.
   (2) Pulled to one side:
   Steering wheel should not be pulled to one side while driving on a level surface.
   (3) Deflection of steering wheel:
   Steering wheel should not show any sign of runout.
   (4) Return status:

Steering wheel should return to its original position after it has been turned and then released.

2. UNIVERSAL JOINT ASSEMBLY STEERING

If steering wheel play is excessive, check the universal joint assembly steering of steering shaft for looseness. If it is loose, tighten the bolt to the specified torque.

Tightening torque:

38 N·m (3.9 kgf-m, 28.0 ft-lb)

If the play is still excessive even after tightening the bolts to the specified torque, detach the universal joint assembly steering and then check the deflection and the swing load at the point where the joints cross. Also, check the seal for damage or serrations for wear. Ref. to POWER ASSISTED SYSTEM (POWER STEERING)>Universal Joint.

3. STEERING GEARBOX ASSEMBLY

1. Set the steering wheel in the straight position, then rotate it 90° in both the left and right directions. While rotating the steering wheel, check looseness of the steering gearbox assembly securing bolts.
   Tightening torque:
   120 N·m (12.2 kgf-m, 88.5 ft-lb)

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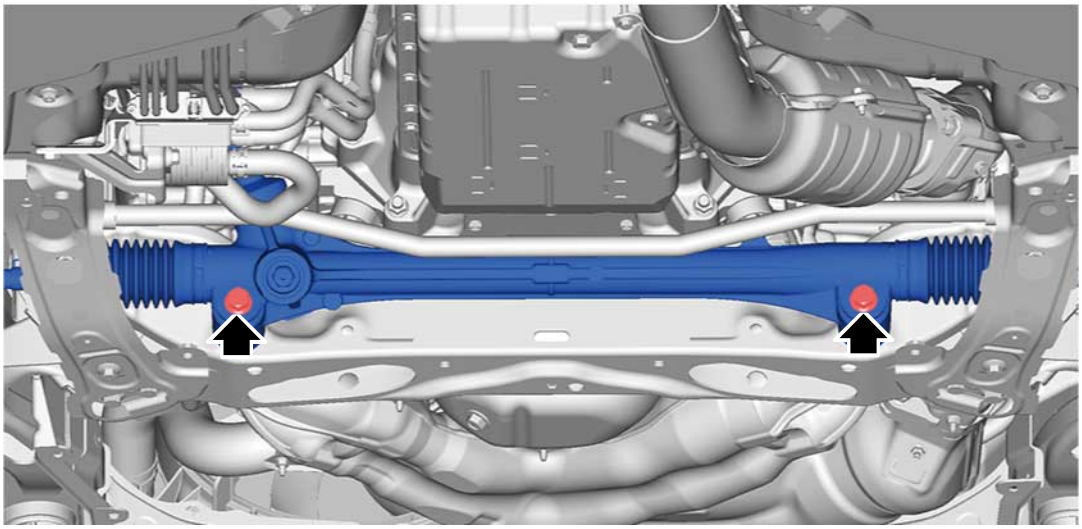

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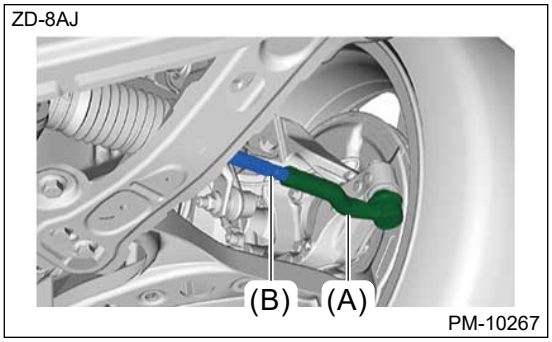
2. Check the boot steering gearbox for damage, cracks or deterioration.
3. With the vehicle stopped on a level surface, quickly turn the steering wheel to the left and right. While rotating the steering wheel, check backlash of the steering gearbox assembly. If any noise is noticed, adjust the steering gearbox assembly backlash. Ref. to POWER ASSISTED SYSTEM (POWER STEERING)>Steering Gearbox>ADJUSTMENT > GEARBOX BACKLASH ADJUSTMENT.

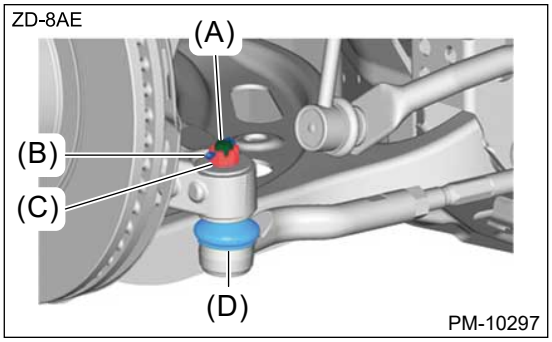
4. TIE-ROD & TIE-ROD END

1. Check the tie-rod and tie-rod end for bend, cracks or other damages.



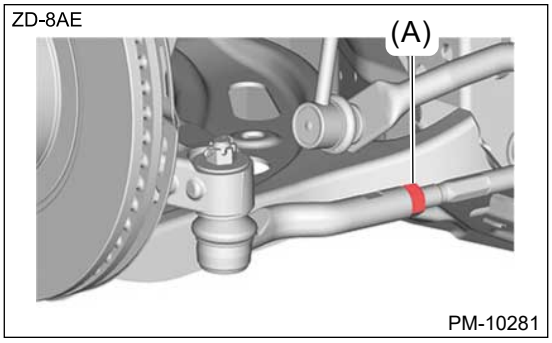
(A) Tie-rod end
(B) Tie-rod

2. Check the connections of tie-rod ball joints for excessive play or looseness. Then check for damage on tie-rod end dust boots and free play of ball studs. If castle nut is loose, retighten it to the specified torque, then tighten further up to a maximum of 60° until the cotter pin hole is aligned.
Tightening torque:
27 N·m (2.8 kgf-m, 19.9 ft-lb)



(A) Ball stud (C) Castle nut
(B) Cotter pin (D) Dust boots

3. Check the tightening of tie-rod end lock nut. If it is loose, tighten it to the specified torque.
Tightening torque:
85 N·m (8.7 kgf-m, 62.7 ft-lb)



(A) Lock nut

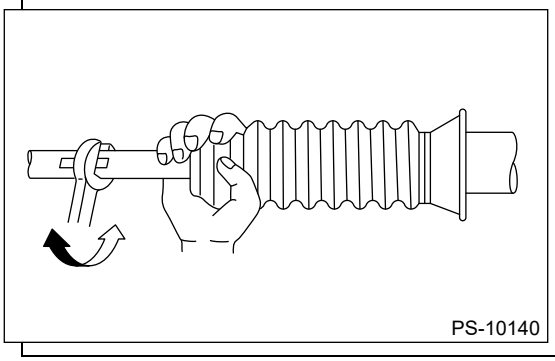
5. BOOT STEERING GEARBOX

Inspect both (A) and (B) sides of the boot steering gearbox as follows, and correct the defects if necessary.

1. The (A) and (B) positions of the boot steering gearbox are fitted in (C) and (D) grooves of the steering gearbox assembly and the tie-rod.
2. Bands and clips are fitted onto the boot steering gearbox grooves at the positions (A) and (B) of the boot steering gearbox.
3. Check that there is no cracks or holes in the boot steering gearbox.

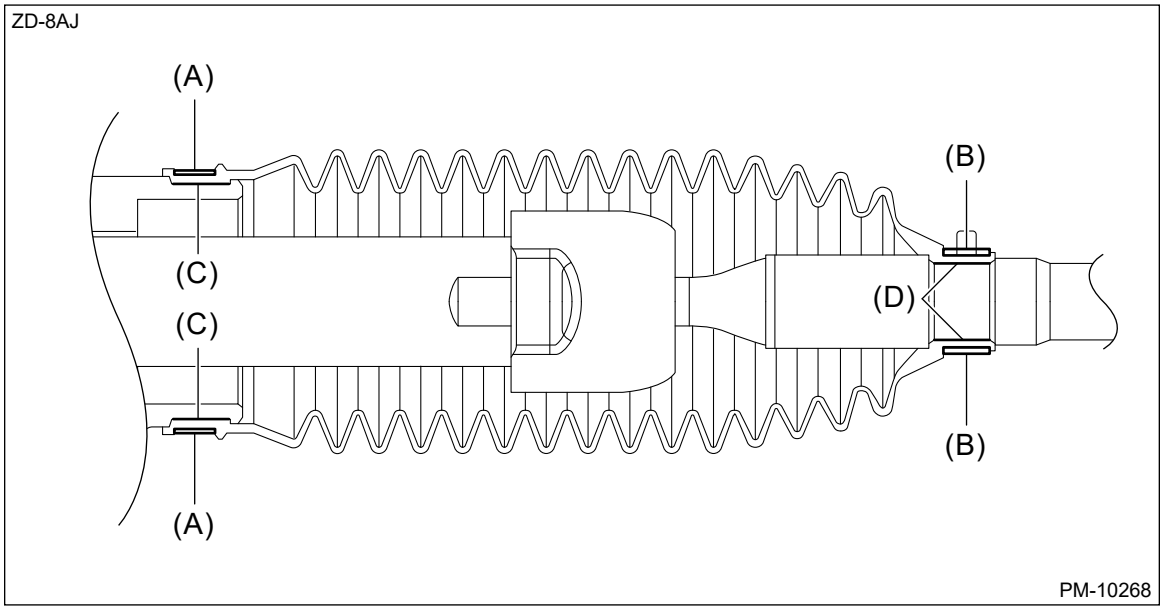
Note:

Rotate (B) position of boot steering gearbox against the torsion produced by the adjustment of toe-in etc. Apply grease to the groove (D).



Grease:

IDEMITSU APOLLOIL AUTOLEX A, Toshiba silicone TSM650 or equivalent

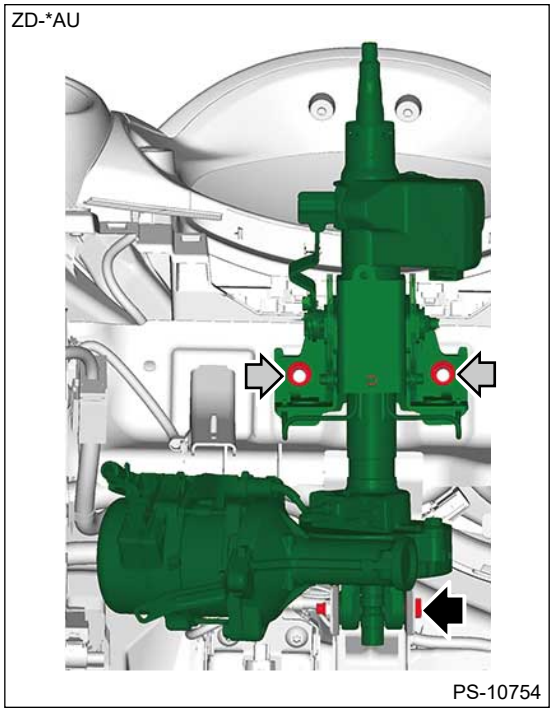


6. COLUMN ASSEMBLY STEERING

1. Check the fixing portion (bolts and nuts) of column assembly steering for looseness or excessive play. Tighten the bolts and nuts to the specified torque if looseness or excessive play is detected.

Tightening torque:

40 N·m (4.1 kgf-m, 29.5 ft-lb)



2. Place the adjustment lever for tilt and telescopic steering in the lock position and check that there is no looseness or excessive play. Also check that the lock/unlock operation can be performed.

Note:
There is free play in a horizontal direction at the tilt lever unlock position. This is not a problem.

7. POWER STEERING SYSTEM (SYSTEM INSPECTION)

1. Check DTC (diagnostic code) of power steering system. Ref. to POWER STEERING (DIAGNOSTICS)>Basic Diagnostic Procedure>PROCEDURE.
   If any DTC is displayed, perform the operation according to the troubleshooting.
2. Check the column assembly steering harness or harness protector for cracks or damages. If defective, replace the column assembly steering with a new part if necessary. Ref. to POWER ASSISTED SYSTEM (POWER STEERING)>Steering Column.

PERIODIC MAINTENANCE SERVICES > A/C Filter

REPLACEMENT

Refer to “A/C Filter” of “AIR CONDITIONER” for A/C filter replacement procedure. Ref. to AIR CONDITIONER>A/C Filter>REPLACEMENT.